DL4001 - DL4007

1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Junction
- High Current Capability
- Low Forward Voltage Drop
- Low Leakage Current
- **Lead Free Finish/RoHS Compliant Version (Note 2)**

Mechanical Data

- Case: MELF
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208 (e3)
- Lead Free Plating (Matte Tin Finish).
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Approximate Weight: 0.25 grams

MELF		
Dim	**Min**	**Max**
A	4.80	5.20
B	2.40	2.60
C	0.55 Nominal	
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	DL 4001	DL 4002	DL 4003	DL 4004	DL 4005	DL 4006	DL 4007	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	71	141	283	424	566	707	V
Average Forward Rectified Current @ T_T = 75°C	I_O	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on Rated Load	I_{FSM}	30							A
Maximum Forward Voltage @ I_F = 1.0A	V_{FM}	1.1							V
Maximum DC Reverse Current @ T_A = 25°C @Rated DC Blocking Voltage @ T_A = 100°C	I_{RM}	5.0 50							μA
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	50							°C/W
Typical Total Capacitance (Note 1)	C_T	15							pF
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150							°C

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.
2. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7.*

NOT RECOMMENDED FOR NEW DESIGNS USE SIX SERIES

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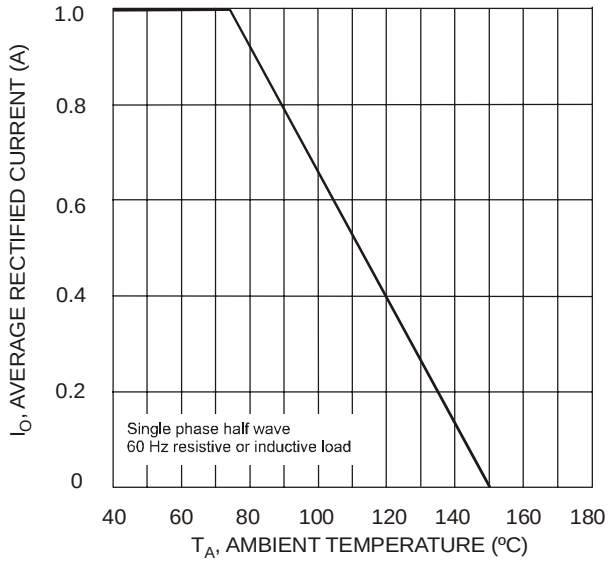

Fig. 1 Forward Current Derating Curve

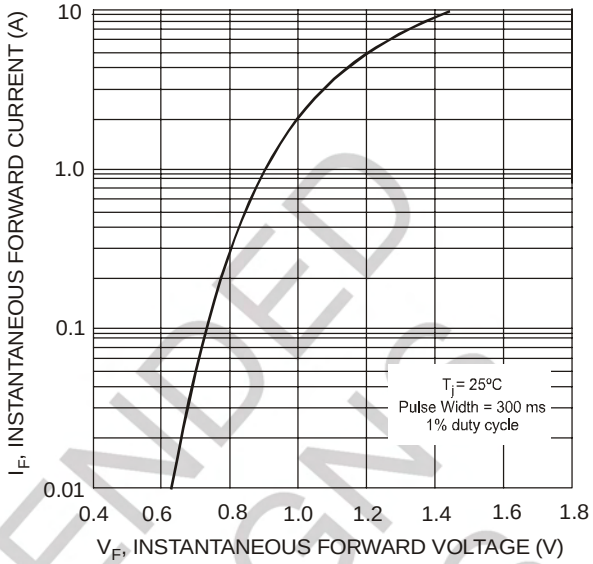

Fig. 2 Typical Forward Characteristics

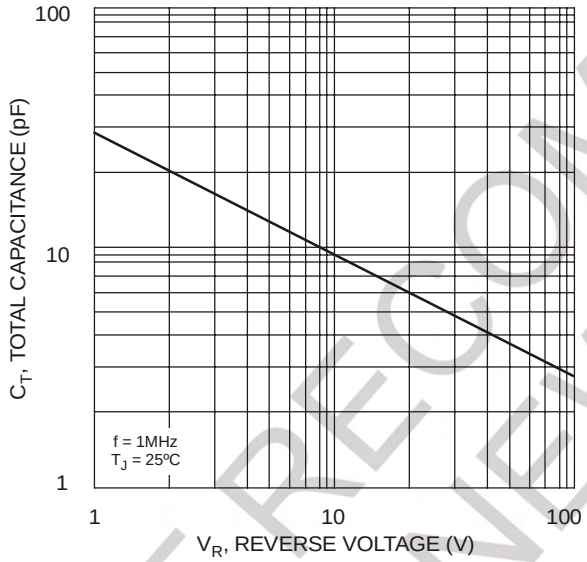

Fig. 3 Typical Total Capacitance vs. Reverse Voltage

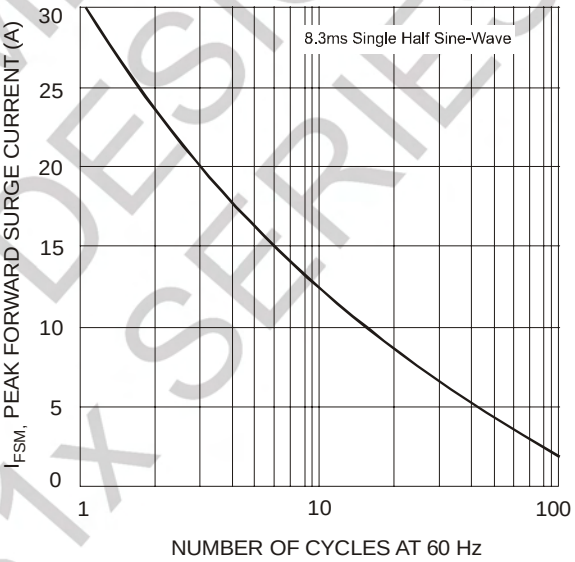

Fig. 4 Max Non-Repetitive Peak Forward Surge Current

Ordering Information

Device	Packaging	Shipping
DL4001-13-F	MELF	5,000/Tape & Reel
DL4002-13-F	MELF	5,000/Tape & Reel
DL4003-13-F	MELF	5,000/Tape & Reel
DL4004-13-F	MELF	5,000/Tape & Reel
DL4005-13-F	MELF	5,000/Tape & Reel
DL4006-13-F	MELF	5,000/Tape & Reel
DL4007-13-F	MELF	5,000/Tape & Reel

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